Notes of the Ship Strike Committee Meeting
March 8, 2004 - Black Falcon Terminal, MASSPORT
Boston, MA

The meeting of the Ship Strike Committee meeting convened at 10:00AM at the Black Falcon Terminal, MASSPORT. Bruce Russell and Amy Knowlton chaired the meeting. Pat Gerrior, NMFS liaison, coordinated the meeting with support from Brad Wellock, MASSPORT.

The attendance list is on file. Anyone desiring a copy should contact Pat Gerrior pat.gerrior@noaa.gov or Bruce Russell barussell@verizon.net; (please provide a FAX number or mailing address). Thirty-nine (39) people, representing the shipping industry, conservation groups, responsible Federal and state agencies, and the scientific and research communities participated in the meeting.

The purpose of the meeting and major topics discussed/addressed included:
1). Review and receive input on the five ongoing Ship Strike Committee projects, discussed below.
2). Solicit input on potential new or follow-on projects for NMFS, other agency or other interested group support and or funding. The potential project list (17 projects) was developed and to be submitted is attached, Attachment 1.
3). Discuss the seasonal whale notifications and sightings alerts in broadcast notices to mariners with Tim Cole, NMFS SAS manager and Katie Moore, Coast Guard Atlantic Area protected resources manager, in particular as it relates to notices to mariners and safety voice broadcasts in the mid Atlantic region. A brief summary of these discussions report is included later in these notes.
4). Discuss ongoing problems with MSR reporting and return messages, MSR compliance, and enforcement.

We received reports from Jamison Smith, Florida Marine Research Institute on the activities of the Southeast Implementation Teams. His brief summary report is included as attachment 2.

We also received an update on NMFS publication/announcement of their Ship Strike Reduction Strategy.

Our discussions covered a wide range of right whale related topics and concerns. Two of these concerns require clarification.

- Several shipping industry representatives raised concerns that proposed vessel operating measures would essentially close areas to shipping. Russell assured that, with the exception of the areas east of the traffic separation scheme (TSS) in the Great South Channel (GSC), no areas proposed would be closed to shipping. Proposed measures for areas where right whales occur would impose a speed restriction… the master retains the discretion to route around any area.

- Captain Walker, pilot for the Bath Iron Works, raised a concern about the proposed Area to be Avoided in the Great South Channel Critical Habitat. His historical observations are that right whales occur throughout the GSC including the TSS. Russell and Knowlton explained that a closer time scaled examination of the data suggests that right whales set up outside the shipping lanes more often than not. Moe Brown suggested that a sightings per unit of effort analysis be conducted (See the potential projects list, attachment 1). Amy Knowlton suggested that her earlier GIS study on right whale movements in the GSC be updated. This information is available at http://www.marinegis.org/rwhale_gis.html. (See the potential projects list).

- Proposed legislation on right whales ship strike reduction measures has been inserted in a Coast Guard authorization bill. There was discussion about this legislation and language and those familiar with both the language and its intent provided their insights. The chairs recommend that those interested contact their associations or parent organizations, as this is beyond the purview of the committee.

Some of the discussions resulted in recommendations for agency action. On the basis of these discussions, and in addition to the potential project list, the co-chairs developed five ***Recommendations to NMFS' and other Agencies' for action:***

1. **The course modules being developed for the Merchant Mariner Education project should be made available to foreign schools and companies conducting in house merchant training.**

2. **NMFS should meet with the Coast Guard to address enforcement problems with the Mandatory Ship Reporting (MSR) System.** Background: Coast Guard Navigation and Vessel Inspection Circular 06-03 revises procedures for the Coast Guard's port state control program. Absent from these procedures is any mention, guidance or legal authority for enforcement of the Mandatory Ship Reporting System. Further, an informal survey of Coast Guard MSO offices indicate local enforcement of the MSR is limited to offices directly within the MSR compliance area. Because of the nature of vessel traffic port calls, all East Coast MSOs should be verifying compliance with the MSR reporting requirements.

1. **The Coast Guard and NMFS should develop specific procedures to publish pre-season annual Notice to Mariners, provide current information in local notice to mariners and information on the sightings of right whales.** Particularly, attention to disseminate information on sightings in the mid-Atlantic region. In addition, NMFS and the Coast Guard should consider developing an annual schedule of tasks that should be that should include, but not be limited to scheduling of Notice to Mariners, Coast Pilot updates, maritime publication updates and outreach materials update and distribution. The language included in these alerts should be reviewed annually to ensure that it reflects the most recent regulations and current recommended prudent practices**.**

2. **Establish an ad hoc working group to explore ways and opportunities for the Northeast and Southeast Implementation Teams to collaborate with NMFS' Ship Strike Working Group.**

3. **Establish an ad hoc working group to coordinate outreach efforts between Northeast and Southeast I-Teams.**

4. **Make available to the shipping industry as part of the outreach program, information and studies/assessments on the viability of technological solutions to the ship strike problem.** Background: The shipping industry continues to question the need for strict operating measures and is calling for technological solutions.

5. **Review protocols with the Coast Guard and Army Corps for handling situations when right whales go up rivers, small harbors, or into the Cape Cod Canal.** Background: right whales have been documented on numerous occasions (at least twice during the winter of 2004 in the southeast US) to swim up river entrances or into/through the Cape Cod Canal. This makes them more vulnerable to interactions with traffic entering and departing port.

Summary of reports on five ongoing Ship Strike Committee projects

Merchant Mariner Education: Bill McWeeny, Educational Consultant, (bmcweeny@adams.u93.k12.me.us) reported that he, Amy Knowlton (aknowlton@neaq.org) and Bruce Russell (barussell@verizon.net) are developing two course modules for inclusion/incorporation into the standard "Social Responsibility" section of the Basic Safety Training course (15 minutes) which is a refresher course required for all U.S. mariners and the voyage planning course and other courses as appropriate (app. 1-hour). The project team is working with Maine Maritime Academy and the Maritime Institute of Technology and Graduate Studies (MITAGS), Baltimore. Bill is working directly with Maine Maritime Academy instructors to determine informational needs and course content based on specific learning objectives. Once these course modules are complete the project team will work with the Coast Guard for course approval and inclusion of the information into ISM Code requirements guidance. The project team will also work with the Chamber of Shipping for inclusion of relevant information into the ICS Bridge Manual. Scott Clegg, CSC International, suggested that the course modules be made available to foreign maritime schools and shipping companies. This is recommended as an action item above.

Right whale ship strike education outreach: Bruce Russell (barussell@verizon.net) provided a brief summary of the project objectives and next steps. First, working with Pat Gerrior and Pat McGinn, and the National Ocean Service (NOS), Coast Pilots 1-4 have been updated to reflect the latest information available on the seasonal occurrence of right whales. Prior to these recent changes, Coast Pilot chapters covering the mid-Atlantic region were essentially silent on the occurrence of right whales in the shipping lanes and approaches to mid-Atlantic ports. Now, information is included. Russell reported this as significant as many mid Atlantic port communities incorrectly believe that right whales are a New England and Florida/Georgia problem. All four Coast Pilots

now have instructions on MSR reporting. NOS has provided extracts for each Coast Pilot. These extracts include chapter by chapter, all references to right whales in the Coast Pilots. These are currently included in the pilots' package that Pat Gerrior developed to educate mariners on right whales and the MSR. Working with the Southeast region, a letter has been drafted to distribute these extracts to all shipping associations, port authorities and pilots associations on the US East Coast. Following the mailing of letters, NMFS and NOS plan on a press release with particular attention to the mid-Atlantic region (i.e., new information). Russell will follow up the letters with visits to the port communities--Philadelphia, Lewes DE, Baltimore, and the wider Hampton Roads region, as well as industry associations in the Washington, DC area. Following these meetings a Ship Strike Committee meeting will be held in the Hampton Roads area. Tom Fetherston, US Navy and Katie Moore (USCG) offered assistance in setting up this meeting. Also, discussed is the need to get accurate information on the nature of the vessel traffic entering/departing Chesapeake Bay. A project proposal to address this concern is included in attachment 1.

Recreational vessel outreach: Erin Heskett, International Fund for Animal Welfare (IFAW), (eheskett@ifaw.org) (tel 508 744 2192) provided a visual of a placard for distribution to recreational vessels (both commercial (i.e., watch vessels, head and charter fishing boats), and private) 65' and above. This is a project jointly funded by IFAW and NMFS. Erin asked for input and suggestions on the placard, the efficacy of signage, and other means to get the information to recreational mariners. Erin agreed to chair an ad hoc working group on recreational vessel outreach, and collaborate with a similar project being conducted in the Southeast. Those interested in receiving a copy of the draft placard should contact Erin. As well, those interested in participating on the ad hoc recreational vessel-working group should contact Erin.

Economic Analysis of Direct and Indirect Effects of Proposed Right Whale Ship Strike Measures for the Port of Boston: Dr. Hauke-Kite Powell (hauke@alum.mit.edu) described the U.S. Maritime Administration (MARAD) economic model he is employing for this project. He has set up the model and is working with the Massachusetts Port Authority (MASSPORT) and other Boston port interests to gather information for the model. MASSPORT and NMFS jointly fund this project.

Vessel Traffic Management Scenarios: Bruce Russell and Amy Knowlton described the analyses techniques and findings in their study and report, *Vessel Traffic-Management Scenarios Based On Recommended Measures to Reduce Ship Strikes of North Atlantic Right Whales, November 2003*. The National Marine Fisheries Service (NMFS) is developing a strategy to reduce ship strikes of right whales along the U.S. East Coast from Maine to Florida. This report examines the impact on vessels calling at major ports, measured in additional time it will take for vessels to comply with proposed vessel operating restrictions. The basis for the proposed operating restrictions are in the report, *Recommended Measures to Reduce Ship Strikes of North Atlantic Right Whales,* 23 August 2001, (Russell, et al). The authors collaborated with researchers at the Woods Hole Oceanographic Institution's Marine Policy Center who conducted an analysis, *Economic Aspects of Right Whale Ship Management Measures, March 2002* (Kite-Powell and Hoagland) on vessel traffic management scenarios based on the management

measures recommended in the August 2001 report. Subsequent to the publication of the Russell report and the Kite-Powell, et al economic assessment, it became clear that the vessel traffic-management scenarios used in the economic assessment did not adequately reflect or describe the impact the recommended measures will have on shipping. Russell and Knowlton described the analytical approaches for providing solid estimates for the impacts measured in additional time it will take for vessels to comply with proposed vessel operating restrictions. In this paper they examine how vessels slow down and speed back up. They examined how vessels enter port to embark a pilot; and then modeled how much net additional time a vessel will take to transit through a seasonal or dynamic management area. They found that, for seasonal management areas from the port of New York and New Jersey south to and including the port of Jacksonville Florida, they originally over-estimated the impact of speed restrictions on a single voyage by as much as 10%-93%, depending on the severity of the proposed measure, the port, and type of vessel. They studied all available right whale sighting data and retrospectively applied the dynamic management trigger mechanism included in the Russell, et al report. They believe that for the most part, where possible, most masters would choose to route around most dynamic management areas. For impact assessment purposes they recommend that modelers use the worst case, that is a vessel slowing to transit through a dynamic management area. In their recent paper**,** Right *Whale Sightings and Survey Effort in the Mid Atlantic Region: Migratory Corridor, Time Frame, and Proximity to Port Entrances*, July 2002, Knowlton, et al, Knowlton and Russell compiled and analyzed all available right whale sightings data in the right whales' migratory corridor from southern New England south to the southern calving grounds off northern Florida and southern Georgia. There is still a paucity of data. Russell reported that their original rough estimate of a 60-day annual duration might be low; their revised estimates range from 98-210 days, 40%-250% longer, depending on the port. In this paper, they provide detailed revised vessel traffic management measures, a method to calculate the net additional time it will take a vessel to transit a management area, recommendations on research to address data gaps needs, and recommendations on future research needs.

Mid-Atlantic Notices to Mariners: Tim Cole, NMFS SAS manager (tim.cole@noaa.gov) and Katie Moore, Coast Guard District 5 and Atlantic Area protected resources manager, (kmoore@lantd5.uscg.mil) discussed notices to mariners and safety voice broadcasts in the mid Atlantic region. There was sometimes heated discussion about what advisories with respect to recommendations on how vessels should transit the area in the mid Atlantic (e.g., reduced speed out to 20-30nm offshore), as well as the duration of the advisory. It was agreed that the notices to mariners should reflect what is in the Coast Pilots. Katie Moore added that the Coast Guard had the ultimate discretion on the content of the notices; also, that Broadcast Notices to Mariners will no longer be mailed out, but will be available on the web. Both she and Tim Cole did invite comments and can be contacted at the e-mail addresses provided. Amy Knowlton suggested that the annual process for publication of notice to mariners for the mid-Atlantic be institutionalized. An agency recommendation to this end is included in these notes.

Update on NMFS Ship Strike Reduction Strategy: Aleria Jensen reported on NMFS' forthcoming publication of a Notice of Intent (NOI) to initiate an Environmental Impact Assessment of their proposed right whale ship strike reduction strategy. Subsequnet to

the meeting, NMFS advised that they would publish an Advanced Notice of Prposed Rulemaking (ANPRM) and initiate an Environmental Assessment process. Aleria Jensen, is an assistant to Dr. Greg Silber, right whale project manager, National Marine Fisheries Service, Office of Protected Species, Silver Spring, Maryland. NMFS hopes to publish the ANPRM in the next few weeks.

Respectfully submitted,

Bruce Russell & Amy Knowlton
Co-chairs

Attachments

Attachment 1

Potential Projects for consideration for funding[1]

1. **Conduct a multi-variate statistical analysis to look at port calls, vessel type, ship' speed, known ship strikes and or right whale (and other whale) mortality) among ports to look to whether the location of the pilot buoy, which may act as a de facto speed restriction, is statistically significant**. Background: Charleston and Savannah may be good examples of de facto speed restrictions on account of the location of the pilot buoy relative to the outer limit of proposed seasonal measures. (It may be important to get a statistician's opinion as to whether there are enough data points to warrant such an analysis. The other factor that would need to be considered is right whale density. Before proceeding with this study, it may be useful to do a power analysis to see if data are sufficient to yield useful results.)

2. **On the basis of these more accurate vessel traffic-management scenarios, revise the *Economic Aspects of Right Whale Ship Management Measures*, by Kite-Powell and Hoagland.** Background: In the report, *Vessel Traffic-Management Scenarios Based On Recommended Measures to Reduce Ship Strikes of North Atlantic Right Whales, November 2003,* Russell, et al., and supported by the study, *Right Whale Sightings and Survey Effort in the Mid Atlantic Region: Migratory Corridor, Time Frame, and Proximity to Port Entrances*, by Knowlton, et al, July 2002, the authors closely examined the impacts of proposed right whale ship strike measures with respect to additional time it would take vessels to comply with operating measures. The study found that the scenarios used by Kite-Powell in most cases result in significant overestimates of the economic impact of the measures on shipping. The update of the economic analysis is supported by many in the shipping industry. In addition this analysis should include the following:

- The ports of Georgetown, SC and Moorhead City, NC.
- When ranges of duration or timeframe are provided, provide economic aspects as a function of duration similar to what has been provided for speed restriction and distance.
- In some areas, it will be necessary to examine economic impacts on fishing vessels and large recreational passenger vessels (including whale watch vessels).
- In addition to presenting the economic costs by port, it would be helpful to also present this information by measure. So for example, for vessels calling on Boston via the Great South Channel, the economic costs would be presented as total costs, as well as the components.
- Examine costs for southbound traffic along the mid-Atlantic region.

[1] Comments were received from Sharon Young, HSUS, David Laist, Marine Mammal Commission, Gregg Farmer, Boston Pilots, Bill Eldridge, Mediterranean Shipping Company, and Joe Pelczarski, Massachusetts Coastal Zone Management. These comments are available from Bruce Russell, Amy Knowlton or Pat Gerrior. They were submitted to NMFS under separate cover (i.e., with the submission of this recommended project list only).

3. **Determine Naval operations / shipping industry transits/number of vessels over 65' ratio for vessels entering Chesapeake Bay**. Background: There has been resistance to engage in the problems of right whales in the Hampton Roads and Baltimore ports. Both the shipping industry and the Navy have argued publicly about the percentage of vessels entering and leaving port of their respective fleets. It is important to have good data when discussing the problem in our outreach efforts in this region. Possible sources of data include: Corps of Engineers port statistics, Virginia Marine Pilots station at Cape Henry, Chesapeake and Delaware Canal data for vessels calling in Baltimore via that route. (Dr. Jim Hain did something similar many years ago for Jacksonville). Tom Fetherston, US Navy indicated that the Navy might be interested in supporting this work.

4. **Research and develop shipping data or estimates for vessels calling Gulf of Maine ports north of Boston which transit via Cape Cod Bay or the Great South Channel.** This information is needed to address potential additional transit time to these ports.

5. **Fund an independent review & evaluation of the current state of knowledge and potential of acoustics work -active and passive, i.e., what is viable (practically and economically) and what is not in both the near and long terms?** Background: This remains an unresolved issue with the industry and one or more research groups. The review should be conducted by acousticians outside the current group of researchers and past investigators with someone on the review group from NMFS with acoustics knowledge. The active acoustics work of Miller et al, Gerstein and Blue and others is still very much an issue to the industry. It is important to peer review the prospects and literature and get this resolved.

6. **Research and develop shipping data or estimates for southbound traffic in the mid-Atlantic.** Background: In the mid-Atlantic, masters of southbound vessels would likely need to route well to the east of the proposed seasonal management areas (SMAs,) (depending on the weather and other conditions), thus adding some additional mileage to their voyages. The shipping data are not available to document the cumulative impact on shipping. This information will be essential for the economic analyses.

7. **Revise the vessel traffic management scenarios report to address Cape Cod Bay and off Race Point routing. Also update the dynamic management analysis of the vessel traffic management scenarios report with 2002-2003 data.**

8. **Research and write a white paper on right whale mortality and ship strikes, by region**. Background: This can be an important part of an outreach program targeted in the Mid Atlantic region were as many as one third of ship strike mortalities have occurred. This project should by conducted by NMFS.

9. **Seek funding for promising modeling research by Russell Leaper and Lex Hiby, *Preliminary Analysis of the Use of Photographic Capture Histories of Individually Identified North Atlantic Right Whales in the Southeast United States to Make Inferences about Whale Occurrence in the Mid-Atlantic Region.*** Background: This research may provide better insights on when whales migrate through the mid Atlantic. This project was originally funded by the International Fund for Animal Welfare. IFAW should submit a proposal to NFWF.

10. **Research and develop shipping data or estimates of vessels transiting Cape Cod Canal to points north and east of Boston.** No data is available on the routes vessels are currently taking through Cape Cod Bay. No data is currently available on the number or type/category of vessels that would be impacted. This work my be part of the CCS/WHOI project on Cape Cod Bay. NMFS should coordinate.

11. **Conduct a study that includes, but is not limited to, questioning of masters, shipping agents and others what actions mariners take when they receive data from the Mandatory Ship Reporting System (MSR)**.

12. **Conduct an analysis of ship speed as a function of vessel type, right whale habitat areas, and port approaches**.

13. **Mount forward looking optical detection devices (e.g., cameras, infrared detectors)on/ above a ship's bow (a vessel will be made available via Bill Eldridge, Mediterranean Shipping Company) to track, identify and record whale ship interactions over the course of one of more voyages.**

14. **Update project: *GIS Presentation of Survey Tracklines, Right Whale Sightings and Right Whale Movements: 1978-2000* to include data from 2001-2003.** This project is on the web at http://marinegis.org/rwhale_gis.html. Background: one mariner noted that he did not use the lanes because the right whales are always in the lanes. This GIS project provides information on how right whales use the GSC on an annual and monthly basis, which varies considerably from year to year.

15. **Conduct sightings per unit effort (SPUE) analysis in the Great South Channel (GSC).** Background: There may be an area within the GSC where right whale sighing densities are lower. These areas could be linked and a new traffic separation scheme established. This would be similar to the shifting of the traffic lanes in the Bay of Fundy.

16. **Study how an increase in population size would change habitat use and what the implications might be for management. (Submitted by Joe Pelczarski.)**

17. **Conduct a study on what would happen to a Right Whale who swims into a stationary object such as a stopped or anchored ship. (Submitted by Greg Farmer.)**

Attachment 2
SEUS Right Whale projects

- North Atlantic Right Whale Informational Signs for Mariners In Florida
    - Proposal submitted to NFWF and funded to design and produce metal signs for posting at large marinas and boat ramps located within or very close proximity to the SEUS Right Whale Critical Habitat.

- Design and production of a right whale educational interactive multi-medium CD for distribution to and use of by the various Harbor Pilot Associations situated within the SEUS.

- Vessel traffic study focused on vessels traveling to and from the Port of Jacksonville and transiting vessels through the Critical Habitat in close proximity to the approaches to Port of Jacksonville utilizing vessel tracking radar system.

- Live right whale stranding response workshop to be hosted in Jacksonville, FL.
    - Intentions are that a document would come out of the workshop to address a Right Whale Contingency Plan for dealing with both alive and dead strandings in the SEUS.

- The SEIT partially supported the Volunteer Sighting Network in St. Augustine with the purchase and temporary loan of high-power binoculars to be used during the SEUS right whale calving season.

- Public Service Announcement's (PSA) to be published in both professional mariner industry publications and both commercial and sport fishing magazines.

- Right whale sightings information included in the NOAA weather broadcasts every 2 hours on marine band VHF.